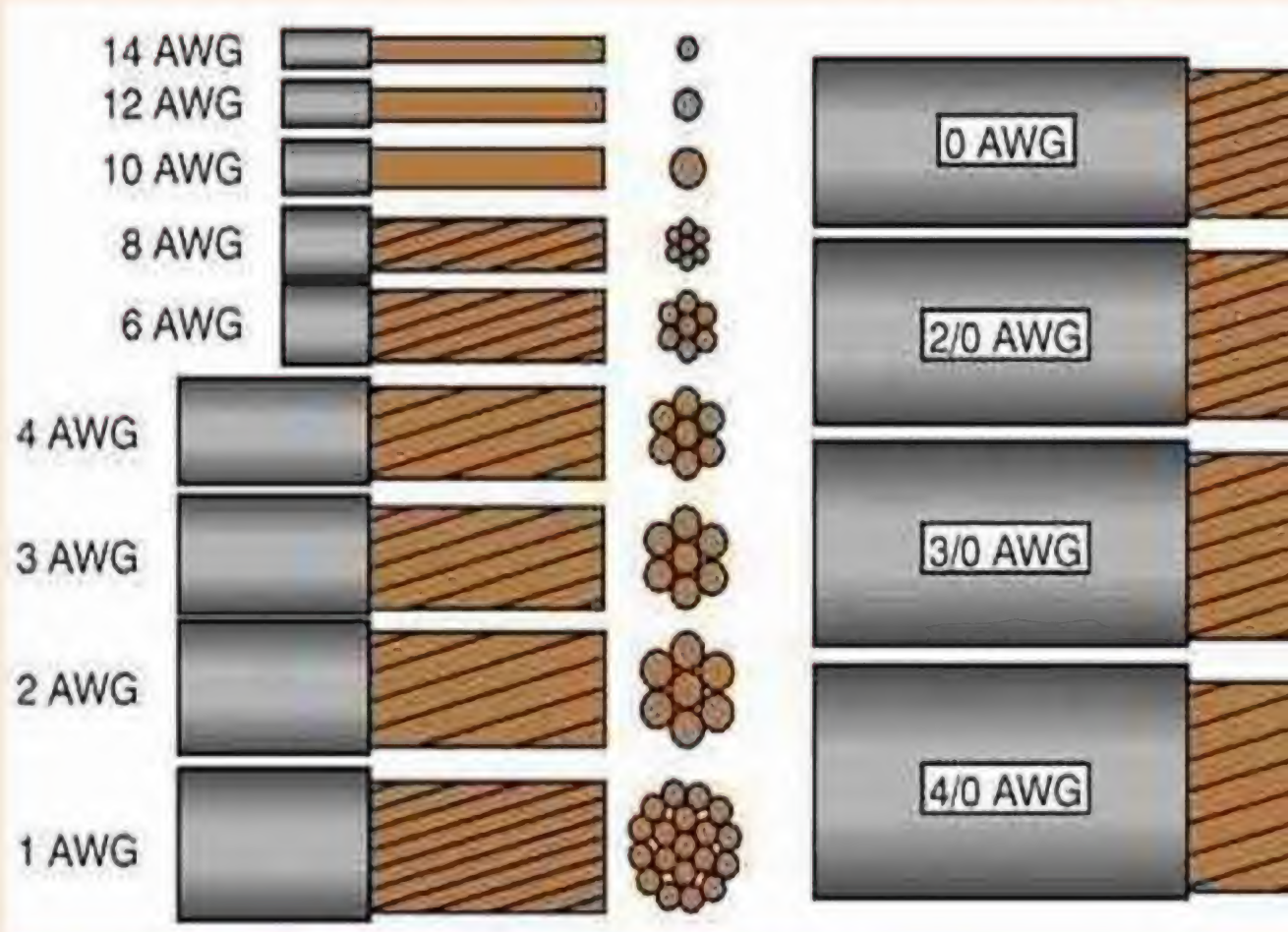


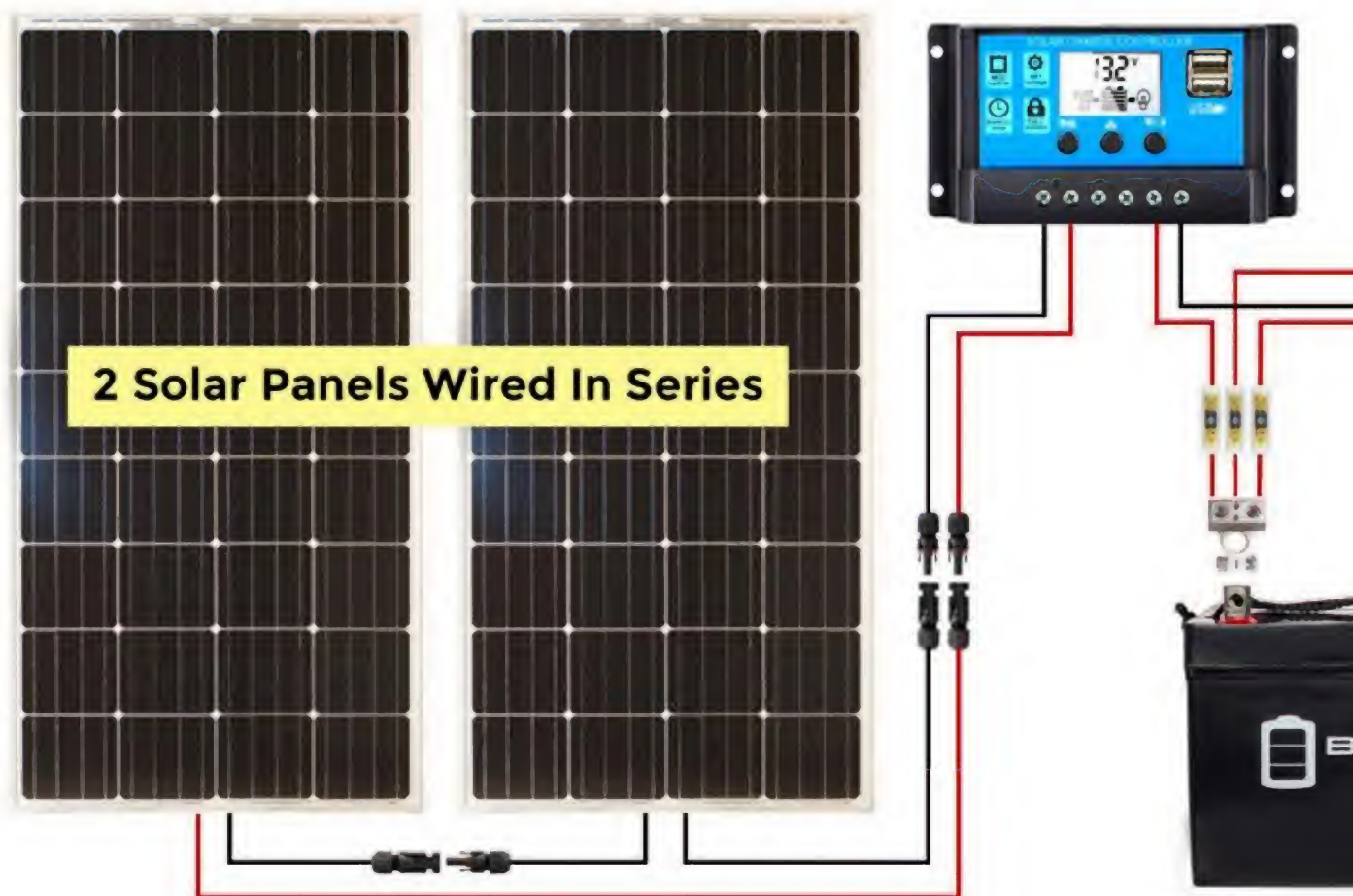
Wire Sizes – It's ok to go E



Wire Sizing Chart 12 Volt System

Maximum one-way distance (feet) for 2% voltage loss in 12 volt systems. Wire Size (AWG).
Do not exceed 5% drop for wire between PV modules – batteries

Amps	14	12	10	8	6	4	2	1/0	2/0	4/0
1	40	70	112	180	290	466	720	-	-	-
2	22.5	35	57.5	90	145	228	360	560	720	1060
4	10	17.5	27.5	45	72.5	114	180	290	360	580
6	7.5	12	17.5	30	47.5	75	120	190	240	380
8	5.5	8.5	11.5	22.5	35.5	57	90	145	180	290
10	4.5	7	11.5	18	28.5	45.5	72.5	115	145	230
16	3	4.5	7	12	19	30	48	75.5	95	150
20	2	3.5	5.5	9	14.5	22.5	36	57.5	72.5	116
25	1.8	2.8	4.5	7	11.5	18	29	46	58	92
30	1.5	2.4	3.5	6	9.5	15	24	38.5	48.5	77
40	-	-	2.8	4.5	7	11.5	19	29	36	55
50	-	-	2.3	3.5	5.5	9	14.5	23	29	43
100	-	-	-	-	2.9	4.5	7.7	11.5	14.5	23
150	-	-	-	-	-	-	4.8	7.7	9.7	15
200	-	-	-	-	-	-	3.5	5.3	7.3	11



Typical Solar

Pair ca



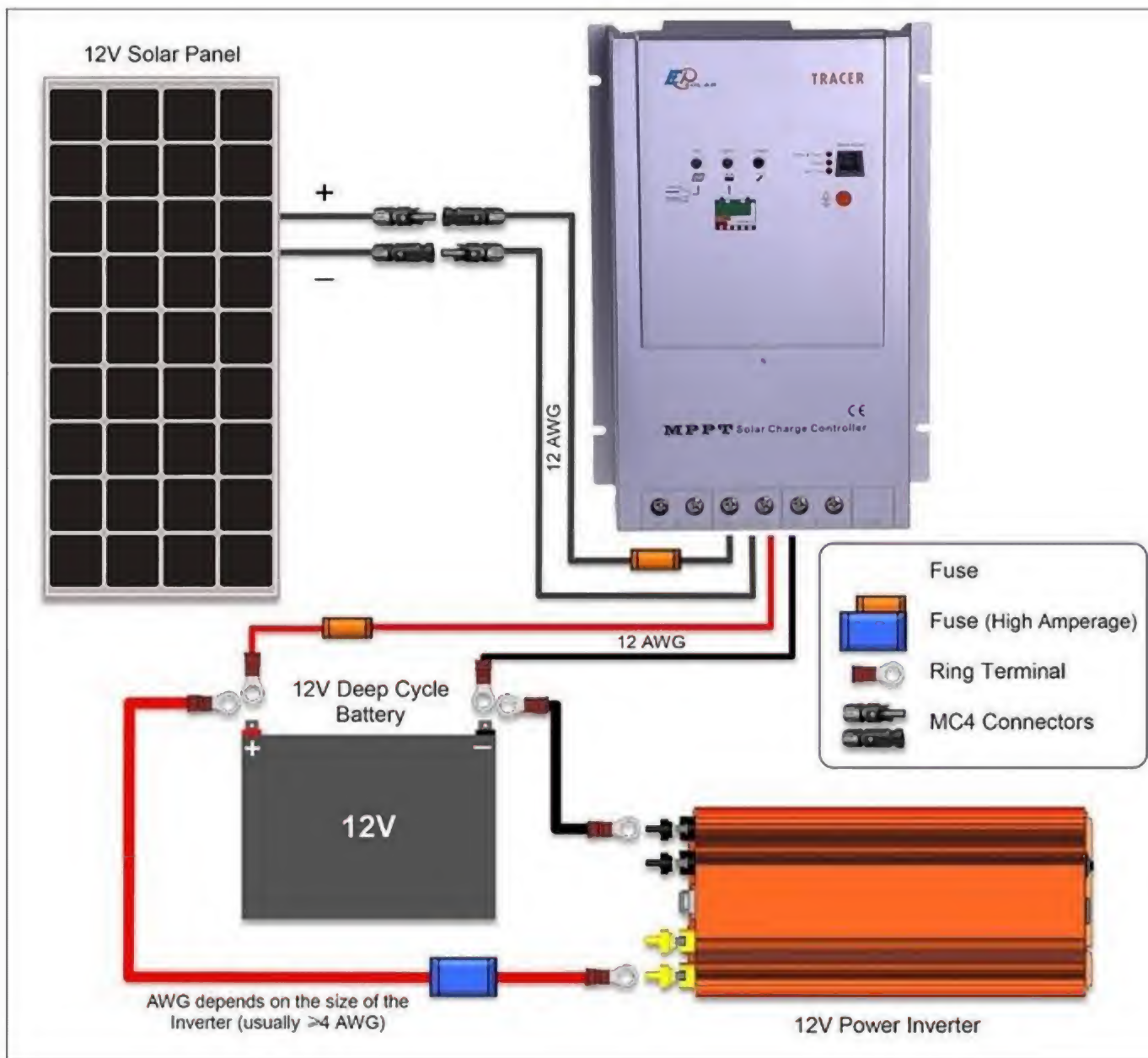
Solar to Regulator
(consider Power Loss)



Batt
(conside

Calculator Terms & Definitions





American Wire Gauge (AWG)

Length (feet)	Current (amps)									
	5	10	15	20	25	30	40	50	60	70
15	16	12	10	10	8	8	6	6	4	4
20	14	12	10	8	8	6	6	4	4	4
25	14	10	8	8	6	6	4	4	2	2
30	12	10	8	6	6	4	4	2	2	2
40	12	8	6	6	4	4	2	2	1	1/0
50	10	8	6	4	4	2	2	1	1/0	1/0
60	10	6	6	4	2	2	1	1/0	2/0	2/0
70	10	6	4	2	2	2	1/0	2/0	2/0	3/0
80	8	6	4	2	2	1	1/0	2/0	3/0	3/0
90	8	4	4	2	1	1/0	2/0	3/0	3/0	4/0